Single-Channel Digital Video Recorder

With XtraStor Technology!

AHDR1 Series

The AHDR1 is an ideal replacement for traditional time-lapse video recorders that provides all the benefits of digital recording with minimal investment and training. The AHDR1 features ADEMCO Video's advanced, proprietary compression algorithm XtraStor, providing more storage on smaller media, without sacrificing image quality – resulting in days, weeks and even months of high-resolution video storage.

With its versatile processing capabilities, the AHDR1 can capture at a rate of up to 60 images per second (30 ips in duplex mode). Further flexibility exists through user-definable schedules and alarm input activation.

The AHDR1 generates compact encrypted archive video clips as self-executable files. ADEMCO Video's minibank format produces an executable (.exe) file containing both the video clip and reader, allowing you to simply run the clip in its original, unalterable format on any PC without the need for reader software.

The built-in network connection provides remote viewing and control over LAN/WAN, ISDN or DSL. The Windows-based remote software package allows secure operation and management of multiple AHDR1 locations.

The DVR can be placed on a desktop or rack mounted for easy access to the front panel controls for operation. The convenient jog shuttle and full LCD display panel operates just like a VCR, making it simple to operate and identify important system information. The intuitive, multi-lingual, graphical user interface provides easy-to-use displays for everyday operation as well as system setup.

With its superior digital technology, flexible feature set, and user-friendly operation, the AHDR1 provides a powerful, digital solution for a variety of video surveillance applications.

FEATURES:

- Long-term video storage using XtraStor Technology
- Records/plays high definition video (720 x 480) with built in hard drive options up to 120GB
- Simplex or duplex recording mode with a capture rate up to 60 ips (duplex mode up to 30 ips)
- Single-channel audio recording/playback (records audio at 15 ips or faster)
- Video backup to USB-IDE hard disk drive (with self executable files)
- Multiple recording modes – time lapse, event only (with configurable pre/post alarm recording), or time and event
- User-friendly, graphical user interface with multi-lingual support
- Front panel buttons, jog/shuttle and LCD display provides familiar operation
- Increased capture rate and image quality per camera on alarm
- Instant search and retrieval modes – calendar, event, time/date, first or last recorded images
- Remote control capability through the RS485 port
- Remote access through PSTN, LAN/WAN (internal NIC), DSL and ISDN (remote access software included)
- Additional 40GB, 80GB and 120GB removable disk drives available
- Compatible with ADEMCO Video and other manufacturers' multiplexers

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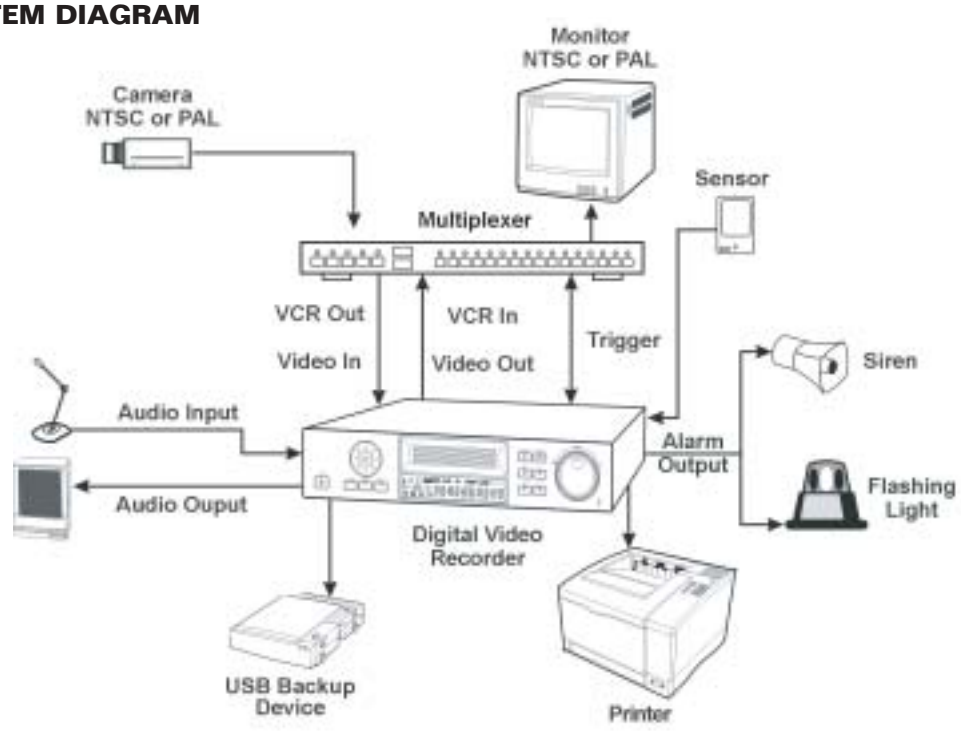
AHDR1 Series

- **High Resolution Image Capture**
  With its 720 x 480 recording resolution the AHDR1 DVR uses XtraStor technology to record and retrieve video from its internal disk storage. This advanced video compression technique permits long-term video storage. With its capture rate of up to 60 images per second (IPS), critical information is processed accurately and efficiently.
- **Flexible Recording Options**
  The AHDR1 performs advanced processing, allowing selection of both the recording speed and picture quality. Further options exist to control recording by schedules or alarm input. This flexibility provides a customized video processing system for each installation.
- **Remote Access Software**
  Using the supplied Remote Access Software (RAS) you can control and configure your AHDR1 unit from virtually any location. The RAS program is an integrated software tool, which controls system management, video monitoring and image playback of multiple AHDR1 remote sites. The RAS software provides secure password protected communications.
- **Instantaneous Search and Retrieval**
  Recording digitally eliminates the need to search through hours of videotape. The AHDR1 allows quick searches of its video database by calendar, event, date and time.
- **Exceptional Picture Quality with XtraStor**
  The AHDR1 delivers crystal clear resolution up to 720 x 480. With its multiple, user-definable resolution and image quality settings per camera, the AHDR1 is flexible and meets the needs of the vast majority of applications. XtraStor enables high-quality video while using minimal hard drive space.
- **Advanced Video Encryption**
  The AHDR1 hard disk recording file is PC-compatible and every recorded image contains a unique fingerprint that is chained with the preceding and succeeding images (chained-fingerprinting). This insures that the video images cannot be modified with any available PC software – enabling a solid chain of evidence.
- **Easy to Install, Configure and Operate**
  The AHDR1 works like a VCR. Its easy-to-use, graphical user interface and familiar front panel controls provide the benefits of digital recording with minimal training. Its convenient jog-shuttle dial allows video review using step-by-step or variable speed control. The complete set of front panel buttons and full LCD display panel provides simple and intuitive operation.
- **Archiving**
  Save recorded video to a USB-IDE hard drive. Video is saved in self-executable file format that contains video player and image enhancement tools. Video can be saved for months at a time and there is no need to load software to playback saved video, allowing for quick and easy distribution.

BASIC SYSTEM DIAGRAM



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SPECIFICATIONS:

Video Recording System
- Standard Media: removable hard disk drive. Additional 40GB, 80GB and 120GB hard drives are available. (See Ordering Information)
- Record Modes: selectable to record until disk is full or continuously overwrite (FIFO), selectable for Simplex (up to 60ips) or Duplex (up to 30ips)
- Video standard (user-selectable):
  – NTSC: 525 vertical lines, 60 fields/sec
  – PAL: 625 vertical lines, 50 fields/sec
  – Quality Settings – 4 Ranges: Very High, High, Standard, Low
- Schedule:
  – User-programmable recording times for each day of the week and holidays
  – Event or continuous

Video Input
- Composite: 1 looping input, 1V p-p, auto-terminating, 75 ohms, BNC
- S-Video: 1V p-p luma & 0.286V p-p chroma, 75 ohms, 4-pin mini-DIN connector

Video Output
- Composite: 1V p-p, 75 ohms, BNC
- S-Video: 1V p-p luma & 0.286V p-p chroma, 75W, 4-pin mini-DIN connector

Rear Panel Connections
- Inputs, 5 V logic or contact closure:
  – Alarm trigger (NC/NO)
  – Event trigger (NC/NO)
  – Record start In
  – One-Shot Recording
- Outputs:
  – Trigger
  – Alarm (open collector)
  – Disk full
  – Record Stop Out
- Connection Points:
  – Printer Port: DB25 connector
  – USB Port: USB connector
  – RS232 Port: DB9 for external modem connection
  – Network connectivity: 10/100 Mbps Ethernet, RJ45
  – Audio input: 1 “line in” or “mic” programmable – RCA connector
  – Audio output: 1 “line out” – RCA connector

Alarm Handling
- Alarm quality settings: Very High, High, Standard, Low
- Alarm duration: user-definable (1 to 300 sec.)
- Images per event (ips):
  – Up to 60 ips Simplex
  – Up to 30 ips Duplex

Front Panel Controls and Indicators
- Push button controls: Menu, Select, Up, Down, Left, Right, Record, Stop, Alarm List, Search, Play/Pause, Forward Play, Fast Play, Reverse Play, Fast Reverse Play, and Counter
- Jog Shuttle Control: Step, Fast Forward/Reverse
- Numeric LED Indicators: Time of Day, Date, and Percent of Disk Remaining
- Discrete LED Indicators: Power Loss, Program Mode, Front Panel Lockout, Real-Time Recording, Event, Disk Full, Recording, Forward, Reverse, Pause

Archiving
- USB-IDE hard drive (V1)

On-Screen Displays
- Positional: date, time – turn on or off
- Alarm/Event list: locate video for playback
- Setup menus: for unit configuration
- Language: selectable for English, French, Spanish, German and Italian

Remote RS-485 Control Port
- Connection: Push & Insert Terminal Strip

Physical
- Dimensions: 3.5" H x 17.0" W x 14.5" D (88mm H x 430mm W x 365mm D)
- Rack-mount height: 3.5", 2U
- Operating temperature: 32-104°F (0-40°C)
- Maximum operating tilt: 10°

Electrical
- Power: 115/230VAC, 50/60Hz, 50W
- Connection: IEC 320 for detachable cord

Regulatory
- Immunity: UL, FCC and CE
- FCC: Part 15 subpart B , Class A
- EMI: EN55022, 1998, Class A
- Safety: EN60950
- Immunity: EN50130-4, 1998, Alarm Std.
- UL: cUL60950

Environmental
- Temperature: 32° to 104° F (0° to 40° C)
- Humidity: 5% to 95%, non-condensing

AHDR1 Series

Single-Channel Digital Video Recorder

AHDR1 Series Recording Time (based on 40GB)

RECORDING PICTURE QUALITY MODE (720 X 480)				
Record Rate	**LOW (2kb)**	**STANDARD (3kb)**	**HIGH (7kb)**	**V-HIGH (18kb)**
60 ips	92.5 hours (3.75 days)	61.5 hours (2.6 days)	27.0 hours (1.1 days)	11 hours (0.45 days)
30 ips	185 hours (7.7 days)	123.5 hours (5.15 days)	53 hours (2.2 days)	20.5 hours (.85 days)
20 ips	278 hours (11.55 days)	185 hours (7.7 days)	79.5 hours (3.3 days)	31 hours (1.3 days)
10 ips	555 hours (23.15 days)	370.5 hours (15.5 days)	158.5 hours (6.6 days)	61.5 hours (2.6 days)
1 ips	5,555 hours (231.5 days)	370.5 hours (154.3 days)	1,587.5 hours (66 days)	617.5 hours (25.7 days)

AHDR1 Series Recording Time (based on 80GB)

RECORDING PICTURE QUALITY MODE (720 X 480)				
Record Rate	**LOW (2kb)**	**STANDARD (3kb)**	**HIGH (7kb)**	**V-HIGH (18kb)**
60 ips	185 hours (7.7 days)	123 hours (5.1 days)	53 hours (2.2 days)	21 hours (0.9 days)
30 ips	370 hours (15.4 days)	247 hours (10.3 days)	106 hours (4.4 days)	41 hours (1.7 days)
20 ips	556 hours (23.1 days)	370 hours (15.4 days)	159 hours (6.6 days)	62 hours (2.6 days)
10 ips	1,110 hours (46.3 days)	741 hours (30.9 days)	317 hours (13.2 days)	123 hours (5.1 days)
1 ips	11,110 hours (463 days)	7,407 hours (308.6 days)	3,175 hours (132 days)	1,235 hours (51.4 days)

AHDR1 Series Recording Time (based on 120GB)

RECORDING PICTURE QUALITY MODE (720 X 480)				
Record Rate	**LOW (2kb)**	**STANDARD (3kb)**	**HIGH (7kb)**	**V-HIGH (18kb)**
60 ips	277.8 hours (11.6 days)	185.2 hours (7.7 days)	79.4 hours (3.3 days)	30.9 hours (1.3 days)
30 ips	555.6 hours (23.1 days)	370.4 hours (15.4 days)	158.7 hours (6.6 days)	61.7 hours (2.6 days)
20 ips	833.3 hours (34.7 days)	555.6 hours (23.1 days)	238.1 hours (9.9 days)	92.6 hours (3.9 days)
10 ips	1,666.7 hours (69.4 days)	1,111.1 hours (46.3 days)	476.2 hours (19.8 days)	185.2 hours (7.7 days)
1 ips	16,666.7 hours (694.4 days)	11,111.1 hours (463.0 days)	4,761.9 hours (198.4 days)	1,851.9 hours (77.2 days)

Record duration, or the quality of images that can be recorded on the AHDR1's hard drive, can vary from one half to two times the typical results shown in the charts above. These results are dependent on several factors including the amount of activity or change in picture and the overall light level or noise in the video signal.

*60 ips available in Simplex recording mode only.

ORDERING:

Part No.		Description
NTSC	**PAL**	
AHDR1	AHDR1X	Digital Video Recorder, Single-Channel, 40GB Drive, Networkable
AHDR1-80	AHDR1X-80	Digital Video Recorder, Single-Channel, 80GB Drive, Networkable
AHDR1-120	AHDR1X-120	Digital Video Recorder, Single-Channel, 120GB Drive, Networkable

Accessories:

AHDR1-RD40	Removable 40 GB hard drive
AHDR1-RD80	Removable 80 GB hard drive
AHDR1-RD120	Removable 120 GB hard drive

Also available: AHDR4, AHDR9, AHDR16 Series, featuring four, nine or 16-channel inputs.

ADEMCO Video Systems Support Center
Toll-free 800-796-CCTV
Direct 972-353-6500
Fax 972-353-6670
www.ademcovideo.com

1305 Waters Ridge Drive
Lewisville, Texas 75057

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